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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

HILL, LAURA C

ART UNIT	PAPER NUMBER
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3761

DATE MAILED: 06/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/626,547

Applicant(s)

OKUDA ET AL

Examiner

Laura C. Hill

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6 Apr 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-11, 15 and 16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-11, 15 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/17/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION***Response to Arguments***

Applicant's arguments filed 6 April 2006 have been fully considered but they are not persuasive.

1. The affidavit including Material 1, Material 2, Material 3 and Comparative Data pages under 37 CFR 1.132 filed 6 April 2006 is insufficient to overcome the rejection of claims 6-11, 13 and 15-16 based upon Okuda et al. (WO 00/53140A1) as set forth in the last Office action because: when all of the evidence is considered, the totality of the rebuttal evidence of nonobviousness fails to outweigh the evidence of obviousness.

Examiner maintains that it would be obvious to modify the 100% fixing extension ratio/percent elongation of Okuda (see page 5, lines 6-7 as previously discussed) with the rate of increase for tensile load, W11/W12 ratio, and W13 width smaller than W14 width for improved ease of putting on a diaper while in a sitting or standing position.

In addition to the rejection as discussed below, Okuda (WO 00/53140) further discloses that the form, material or the stretching percentage of the elastic member in the standing cuffs may be changed to thereby modify the stress of each elastic member including altering width between each adjacent elastic member and the stress of the elastic members (page 11, lines 14-25).

2. Examiner maintains that the structural features A-G as disclosed by applicant do not provide unexpected results (see Remarks pages 10-23) and the affidavit materials have not convinced the Examiner otherwise as discussed below. In response to Applicant's arguments that 'the present invention is different from conventional pull-on

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type diapers in that a flat type diaper has been considered to be a diaper for putting on a wearer in a lying position' (see Remarks pages 13-14 and 21), the limitations on which the Applicant relies (i.e., flat-type diaper) are not stated in the claims. It is the claims that define the claimed invention, and it is the claims, not specifications that are anticipated or unpatentable. *Constant v. Advanced Micro-Devices Inc.*, 7 USPQ2d 1064. The affidavit is not convincing because it is unclear from Referential Figure 1 of 'Material 1' which diaper drawing is a 'flat-type diaper'? Furthermore, Graph 1 of 'Material 1' does not show time as a function of load or gather length and thus Examiner has determined that this discrete time period 'when diapering a wearer in a standing position' has been arbitrarily established by Applicant and bears little relevance in comparing the load needed to open the standing gathers on the diaper or the extension ratio as a function of time. Assuming arguendo that this time period is not arbitrary, there is no nexus comparing the combination of the claimed properties (especially the extension ratio percentage) with the time needed to diaper a wearer in a standing position. The nexus is between the alleged merits or benefits of the claimed invention and the evidence offered, *Cable Elec. Prods., Inc. v. Genmark, Inc.*, 770 F.2d 1015, 226 USPQ 331 (Fed. Cir. 1985); *Vandenberg v. Dairy Equip. Co.*, 740 F.2d 1560, 224 USPQ 195 (Fed. Cir. 1984); *Simmons Fastener Corp. v. Illinois Tool Works, Inc.*, 739 F.2d 1573, 222 USPQ 744 (Fed. Cir. 1984); *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983). Examiner believes the intent of this time period is to compare the extension (fixing or effective?) ratio of the invention with some comparative conventional diaper. However, Graph 1 does not show effective extension ratio rate of increase from

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30% lower than fixing extension ratio (e.g.:20-270%) or the fixing extension ratio of 100-300% as described in claim 1. Examiner also notes that it is unclear from any of the graphs that the extension ratio is defined as the slope of the load versus length curve, and if so—which extension ratio (fixing or effective) is defined by the curve. Moreover, it is unclear which comparative example diaper (if any) from 'Comparative Data' evidence is depicted as the 'conventional diaper' labeled numeral 1 on graph 1 of 'Material 1' sheet. It is noted that although not a requirement of the affidavit, it is unclear of how the conventional diaper labeled numeral 1 in Material 1 is similar or dissimilar in tensile properties to the diaper of Okuda discussed below with respect to the rejected claims. Examiner maintains it would be obvious to modify the diaper of Okuda with the claimed values since Applicant has not convincingly stated how the relationship between a higher extension (fixed or effective) and a lower load of the claimed invention varies enough from the diaper of Okuda to prevent a caregiver from putting on Okuda's article from a standing or lying position.

3. In response to Applicant's argument that 'less tensile load is needed to open and fasten the diaper onto the standing baby or infant' versus the conventional diaper labeled 1 in Graph 1 of 'Material 1' (see Remarks page 18), Examiner observes from Graph 1, Material 1 that a load of approximately 0-40 gf is needed for the conventional diaper 1 during this time period when diapering a wearer in a standing position while a load of approximately 30-42 gf is needed for applicant's invention labeled 2 during this same time period. Thus approximately the same or slightly more tensile load is needed for Applicant's article labeled 2 during this time period when the article is applied to a

wearer standing. Hence, since the force is not reduced (contrary to Applicant's allegation on paragraph 2 of page 18 Remarks), excessive resistance against stretching the standing gather is not necessarily suppressed during diapering while standing. Moreover, since the loads are approximately equal during this time period (as disclosed on graph 1, Material 1 by Applicant), this load property is not deemed to be a non-obvious variant of the conventional diaper or of the diaper of Okuda.

4. In response to Applicant's arguments that the width of the crotch portion is crucial and varies from the lying to standing position (see Remarks page 14), Examiner disagrees with the statement that a wearer will necessarily spread their legs further while in a lying position than in a standing position since an infant will not always cooperate with a caregiver when putting on the article and it is plausible that there be a greater width between legs when the user is standing than when lying down if user resists the diapering process.

5. Examiner is disagrees with the statement that the 'standing gathers [of conventional diapers] contact the wearer's thighs and thus will disturb the diapering process' (see Remarks page 15) since it is the contact of these gathers or cuffs around the legs and over the thighs of the user that prevent leakage of body exudates during movements occurring during wearing. Okudo exhibits upstanding guards that exhibit good fit to the wearer's skin to improve leakage prevention properties (page 1, lines 20-22).

6. In response to Applicant's argument that the leg gathers with elastics defined in element C in addition to the previously mentioned standing gathers form a pocket to

receive bodily waste (see Remarks pages 18-19), the limitations on which the Applicant relies (i.e., pocket) are not stated in the claims. It is the claims that define the claimed invention, and it is the claims, not specifications that are anticipated or unpatentable.

Constant v. Advanced Micro-Devices Inc., 7 USPQ2d 1064.

7. In response to Applicant's argument that 'excellent leakproofness cannot be obtained without the instantly element E (the ratio of $W1/W2 = 0.67-0.81$)' (see Remarks page 19), the addition of the ratio of $W1/W2$ in combination with the other claimed properties is not reflective of the ease of the caregiver's ability to put on the diaper in a standing or lying position but rather determines how well space retention for soft stools perform in comparison with conventional diapers (see instant specification page 42, table 4 and page 44, table 5). Furthermore, comparative example 5 (not Applicant's invention) having values that lie outside $W11/W12$ ratio values are disclosed by Applicant as having good ease of diapering (instant specification, page 44, table 5). Moreover, comparative example 5 has all of the same property values as in Applicant's claims except the $W11/W12$ ratio and has good ease of diapering in standing or sitting position (see spec page 44, table 5).

8. In response to Applicant's argument that traverse the claimed features as result effective variable and discovering an optimum value (see Remarks page 20), Examiner maintains it would be obvious to modify these properties of Okuda for improved article performance while user is sitting or standing.

9. In response to Applicant's argument that 'it is not prima facie obvious to modify the reference unless the references suggest an advantage to be gained from the

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modification' (see Remarks page 21), Examiner notes that as long as some motivation or suggestion to combine the references is provided by the prior art taken as a whole, the law does not require that the references be combined for the reasons contemplated by the inventor. *In re Beattie*, 974 F.2d 1009, 1312, 24 USPQ2d 1040, 1042 (Fed. Cir. 1992).

10. The evidence presented in 'Material 3' is not persuasive because it is unclear and not convincing that the Applicant's example 1 is preferred due directly because of its rate of increase of tensile load in combination with the other claimed properties that allegedly distinguishes it over conventional diapers and thus in this case, superiority has not established unexpected results (see Remarks page 22). Examiner does not agree that a total evaluation can be based on only *one* of the two characteristics presented. [It is also noted that a factual presentation of preference might include more than two characteristics selected by Applicants.] Thus, the total evaluation support for Example 1 (applicant's invention) should be 63% ([percent support ease of diapering +leakproof properties]/2) and should be 30% for Comparative Example 1 based on the opinions of 30 mothers evaluating only large size samples for each product. Examiner notes that the opinions of 30 mothers who use diapers *of large size* (study appears to exclude other sizes of diapers) are less probative than facts since they are opinions. *In re Knowlton*, 500 F.2d 566, 572, 183 USPQ 33, 37 (CCPA 1974); *In re Brandstadter*, 484 F. 2d 1395, 1405-1406, 179 USPQ 286, 293-294 (CCPA 1973).

11. Finally, the 'Comparative Data' is not persuasive evidence in rebutting the prima facie case of obviousness since present invention discloses the shape of a diaper when

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diapering a wearer to be 'curves in to a U-shape' while the Comparative examples 'curl up in the longitudinal direction' when diapering a wearer. The 'data' is not sufficient since there is no mention in the 'Comparative Data' analysis of whether the wearer is in a standing or lying position when diapering, which is argued as a crucial novelty by Applicant. Although Applicant has presented a nexus between the increase rate of tensile load, stiffness and the resulting shape of the diaper, there is no evidence presenting whether this resulting shape is in the lying down or standing up positions of the wearer. Furthermore, Examiner sees no distinction from the evidence between a diaper that 'curves in to a U-shape' and one that 'curls up in the longitudinal direction' as recited by Applicant. A U-shape by definition is a concave up curve and thus these two shapes of 'curving into a U-shape' and 'curls up in a longitudinal direction' are equivalent.

Information Disclosure Statement

12. The information disclosure statement (IDS) submitted on 17 August 2005 was filed prior to the mailing date of the second non-final Office action mailed on 8 November 2005 and was inadvertently previously not considered. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the English abstract and figures only of information disclosure statement is being considered by the examiner.

Specification

13. All objections to the specification have been removed in response to the Amendment filed 6 April 2006

Claim Objections

14. Claims 15-16 are objected to since they are dependent from cancelled claim 1. These claims have thus been examined as if they were dependent from independent claim 7.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

15. Claims 6-11, 13 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okuda et al. (WO 00/53140A1; herein 'Okuda'). Regarding claims 7-11 Okuda discloses disposable diaper 1 including absorbent core 4 sandwiched between liquid permeable top sheet 2 and anti-leakage/back sheet 3 (page 2, line 31- page 3, line 5) with free end region 64 having a larger stress in the crotch portion of the wearer so that the standing property of the parallel spaced laterally extensible upstanding guard/standing gather 6 improves the fit to prevent leakage caused by crossing over of upstanding guard/standing gather 6 (page 7, lines 25-29, figure 4), fastening tape/band fastening member 11 on each side edge of waistband (page 3, lines 5-7, figure 1), stress of the upstanding guard elastic member 64 disposed at the longitudinal free edge end/high stiffness region 63 of 10-1000gf and preferably greater by from 5-500 gf than that of all the remaining upstanding guard elastic members 64

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between laterally spaced low stiffness regions ['low stiffness regions' are considered to be any region outside of high stiffness region 63] (page 14, lines 10-12 and figure 1).

Okuda further discloses fixed elastic members 64a-64d with a stress of 5-50cN in a 100% stretched condition/fixed extension ratio (page 4, ll. 9-10, page 5, ll. 13-15).

Okuda further discloses a distance between fixed end of standing gathers on each side of diaper (W13) of 5-50 mm (page 14, line 25). Okuda *does not expressly disclose* a tensile load required to extend standing gathers, rate of increase, stiffness region width, crotch portion width, ratio of distances between opposite fixed gather ends and opposite elastic members (W11/W12), standing gathers width (W14) values, or diaper weight.

Tensile load is a result effective variable since it is at least a result of the material used for the standing gathers. Rate of increase is a result effective variable since it is at least a result of the amount of tensile load applied. Stiffness region width is a result effective variable since it is at least dependent on the overall diaper size. Crotch portion width, the aforementioned ratios, and diaper weight are result-effective variables since they are a result of the overall article size, or types of materials used in standing gathers. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Okuda with tensile load, rate of increase, stiffness region width, crotch portion width and ratio values for improved article performance while sitting or standing, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch and Slaney*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980).

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Regarding claims 6 and 13 Okuda discloses the diaper is divided in half by standing gathers 6 (figure 1). Okuda does not expressly disclose a saturated absorption capacity ratio values. Saturated absorption capacity ratio is a result effective variable since it is at least a result of the materials used in the article and overall article size. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to modify Okuda with saturated absorption capacity ratio values, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch and Slaney*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 15 Okuda discloses two or more elastic members 64a, 64b, 64c and 64d (page 6, line 16 and figure 1).

Regarding claim 16 Okuda discloses elastic members with the tensile load increase rate and tensile load values claimed since more than two elastic members in standing gathers are disclosed. The discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's functioning, does not expressly disclose not render the old composition patentably new to the discoverer. *Atlas Powder Co. v. Ireco Inc.*, 190F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Cir. 1999). Thus the claiming of a new use, new function or unknown property which is inherently present in the prior art does not expressly disclose not necessarily make the claim patentable. *In re Best*, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C. Hill whose telephone number is 571-272-7137. The examiner can normally be reached on Monday through Friday (off every other Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tatyana Zalukaeva can be reached on 571-272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Laura C. Hill
Examiner
Art Unit 3761

LCH



TATYANA ZALUKAEVA
SUPERVISORY PRIMARY EXAMINER

